

CLAIMS

What is claimed is:

1. An apparatus for at least one of distracting an intervertebral space and determining a size of an artificial intervertebral disc to be implanted in the intervertebral space, the apparatus comprising:

a shaft;

at least two distal extensions coupled to the shaft;

a bifurcated trial having a first trial half of the bifurcated trial coupled to a first of the extensions and having a second trial half of the bifurcated trial coupled to a second of the extensions; and

a pin located between the extensions;

wherein at least one external trial shape of the bifurcated trial approximates at least one external disc shape of a corresponding portion of the artificial intervertebral disc;

wherein movement of the pin in a distal direction increases a separation between the extensions;

wherein movement of the pin in a proximal direction decreases the separation between the extensions; and

wherein varying the separation between the extensions varies a separation between the trial halves.

2. The apparatus of claim 1, wherein at least one of the trial halves pivots to place the trial halves in lordosis.

3. The apparatus of claim 1, wherein at least one of the trial halves has an outwardly facing trial surface shaped as a convex dome.

4. The apparatus of claim 1, wherein at least one of the trial halves has a smooth outwardly facing trial surface.

5. The apparatus of claim 1, wherein at least one of the trial halves has an outwardly

facing trial surface that approximates a corresponding outwardly facing disc surface of the artificial intervertebral disc.

6. The apparatus of claim 1, further comprising at least one marking, wherein the marking quantifies at least one of the group consisting of a first distance between respective inner surfaces of the trial halves, a second distance between respective outer surfaces of the trial halves, and the size of the artificial intervertebral disc to be implanted in the intervertebral space.

7. The apparatus of claim 6, wherein the marking is located on the shaft.

8. The apparatus of claim 6, wherein at least one of the markings quantifies an artificial intervertebral disc size in a range of 13 mm to 20 mm.

9. The apparatus of claim 1, further comprising at least one flange coupled to a proximal shaft end of the shaft;

wherein applying pressure to the flange in a distal direction aids insertion of the bifurcated trial into the intervertebral space; and

wherein applying pressure to the flange in a proximal direction aids extraction of the bifurcated trial from the intervertebral space.

10. The apparatus of claim 1, wherein at least one of the extensions is coupled to a fulcrum of the shaft.

11. The apparatus of claim 1, wherein at least one of the extensions is biased toward the other of the extensions.

12. The apparatus of claim 11, wherein the bias is created by at least one of the group consisting of a spring, a material of at least one of the extensions, a strength of the material, and formation of a fulcrum that is located at a proximal end of at least one of the extensions.

13. The apparatus of claim 1, wherein at least one of the trial halves is pivotally coupled to

its corresponding extension such that the trial half pivots about an axis perpendicular to a longitudinal axis of the extension passing through the bifurcated trial; and wherein the pivoting of the trial half allows the trial half to adjust to the orientation of a vertebral bone when the trial half is inserted into the intervertebral space such that relative hinging of adjacent vertebral bones is minimized.

14. The apparatus of claim 1, wherein at least one of the extensions is coupled to the shaft via at least one screw such that the screw limits adjustment of the pin.

15. The apparatus of claim 1, further comprising an outer shaft portion coupled to the pin and extending adjacent at least one of the group consisting of a portion of the shaft, and a portion of one of the extensions.

16. The apparatus of claim 15, further comprising a control device coupled to at least one of the outer shaft portion and the pin; wherein movement of the control device varies the separation of the trial halves.

17. The apparatus of claim 16, wherein the control device is a first control device, and further comprising a second control device, wherein the second control device maintains the trial halves at the separation created by adjustment of the first control device.

18. The apparatus of claim 17, wherein at least one of the control devices is a knob.

19. The apparatus of claim 17, wherein the second control device is threaded to at least a portion of the shaft; and wherein interference between second control device threads of the second control device and shaft threads of the shaft holds the extensions at the separation created by adjustment of the first control device.

20. The apparatus of claim 17, wherein rotation of the second control device increases the separation between the trial halves; and wherein reverse rotation of the second control device decreases the separation between the trial halves.